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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,362	02/12/2004	Mark Spotwood	BEAS-01313US1	5069
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FLIESLER MEYER LLP 650 CALIFORNIA STREET 14TH FLOOR SAN FRANCISCO, CA 94108			EXAMINER WEI, ZHENG	
			ART UNIT 2192	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/777,362

Applicant(s)

SPOTWOOD, MARK

Examiner

Zheng Wei

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 09/09/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the application filed on 02/12/2004.
2. Claims 1-30 are pending and have been examined.

Oath/Declaration

3. The Office acknowledges receipt of a signed oath/declaration filed on August 13, 2004. However, the inventor's name is misspelled. (Mark Spotswood at page 1 and Mark Spotwood at page 2)

Priority

4. This application claims benefit of provisional application 60/446,836 filed on 02/12/2003. Therefore, the priority date considered for this application is February 12, 2003.

Information Disclosure Statement

5. The information disclosure statements filed 09/09/2004 has been placed in the application file and the information referred to therein has been considered.

Drawings

6. The drawings filed on February 12, 2004 are objected to because of following minor informalities:

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- Figure 1, “loader” should be –loaded--; elements 108-112, “cl” should be – class— and elements 104, “util” should be changed to –utilized— (or as an acronym, needs to be spelled out in the drawing or specification);
- Figure 2, “loader” should be –loaded--; elements 128-132, “cl” should be – class- and elements 124, “util” should be changed to –utilized— (or as an acronym, needs to be spelled out in the drawing or specification);

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

7. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (see for example, p.6, paragraph [0024]). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.
8. The disclosure is objected to because of the following informalities: section Cross-References (see for example, paragraph [0003]) needs to be updated for current referenced application number.

Appropriate correction is required.

Claim Objections

9. Claims 3, 6-30 are objected to because of the following informalities:

Acronym, like EJB, WAR and impl class in the claims above, which needs to be spelled out once in the claim, as their claimed intermediate meanings tend to change over the time

Appropriate correction is required.

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10. Claims 7, 17 and 27 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 7, 17 and 27 are dependent claims of claims 6, 16 and 26 respectively. Claims 6, 16 and 26 have already defined "the module is any of EJB...", they cannot be further redefined as WAR file. Because EJB and WAR file are different files. For the purpose for compact prosecution, the Examiner treats the claims 7, 17 and 27 as dependent claims of claims 5, 15 and 25, respectively.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In*

re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1, 10, 11, 20, 21 and 30 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 9, 11, 19, 21 and 29 of copending Application No. 10/777,361. Although the conflicting claims are not identical, they are not patentably distinct from each other. As can be seen from the table below, instant claims and the claims of copending application are directed to the same subject matter of the invention. For example,

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<p align="center">Copending Application 10/777,361</p>	<p align="center">Instant Application 10/777,362</p>
<p><u>Claims 1, 11, 21.</u> A system/method/computer readable medium for loading applications, comprising:</p> <p>a server for providing a software application, wherein said software application has a number of modules and classes associated therewith;</p> <p>a control file associated with said software application, wherein said control file specifies a hierarchy of classloaders to be used with said software application; and,</p> <p>a deployment mechanism that loads with said application a selection of said classloaders according to the hierarchy specified by said control file.</p>	<p><u>Claims 1, 11, 21.</u> A system/method/computer readable medium for loading software applications, comprising:</p> <p>a server for executing an software application thereupon, wherein said software application has a number of modules associated therewith;</p> <p>a control file associated with said software application, wherein said control file specifies a hierarchy of classloaders to be used with said modules;</p> <p>a deployment mechanism that loads with said software application a selection of said classloaders according to the hierarchy specified by said control file; and,</p> <p>wherein upon receiving a request to deploy any of said modules the system determines, according to said hierarchy, the minimum number of modules and/or additional modules necessary to deploy or redeploy the software application, and then deploys those modules</p>
<p><u>Claims 9, 19, 29.</u> The system/method/computer readable medium of claim 1/11/21 wherein the server provides multiple software applications, each with their own hierarchy of classloaders.</p>	<p><u>Claim 10, 20, 30.</u> The system/method/computer readable medium of claim 1/11/21 wherein the server provides multiple EJB software applications, each with their own hierarchy of classloaders.</p>

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 11-13 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumar (Kumar et al., US 7,039,923)

Claim 11:

Kumar discloses a method for loading application components, comprising the steps of:

- providing an EJB software application thereupon, wherein said EJB software application has a number of modules associated therewith (*see for example, col.8, lines 29-40, "J2EE application", "EJBs" and related description*);
- parsing a control file associated with said EJB software application, wherein said control file specifies a hierarchy of classloaders to be used with said modules (*see for example, col.5, lines 26-28, "a transformation of the*

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hierarchical relationship may be performed in generating the hierarchical stack of class loaders”);

- deploying said EJB software application with a selection of said classloaders according to the hierarchy specified by said control file (*see for example, col.5, lines 19-54, “A hierarchical stack of the class loaders, configured for use by the application in reloading...”*); and,

wherein upon receiving a request to deploy any of said modules, determining, according to said hierarchy, the minimum number of modules and/or additional modules necessary to deploy or redeploy the EJB software application, and then deploys those modules (*see for example, col.8, lines 50-54, “Using embodiments of the class dependency graph-based class loading and reloading mechanism, only a changed class and its dependent classed are reloaded, thus limiting the number of class that are affected in the application server 108”*).

Claim 12:

Kumar also discloses the method of claim 11 further comprising a user interface that allows a software developer to specify a subset of said modules to be deployed (*see for example, col.12, lines 16-43, “In other embodiments, the method may be implemented as a user controlled process, for example by providing a graphical user interface (GUI)...”*).

Claim 13:

Kumar further discloses the method of claim 11 wherein said modules are any of EJB components, classes, or implementations (see for example, *col.8, lines 29-40, "EJBs" and related description*).

Claim 20:

Kumar further discloses the method of claim 11 wherein the server provides multiple EJB software applications, each with their own hierarchy of classloaders (see for example, Fig.11, Class loader 204A, 204B, 204C and related text).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1-10, 14-19 and 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar (Kumar et al., US 7,039,923) in view of Susarla (Susarla et al., US 6,915,511)

Claim 14:

Kumar discloses the method of claim 12, but does not explicitly disclose wherein said user interface allows the software developer to specify a redeploy command

that instructs the method that said subset should be redeployed, wherein said redeploy command specifies an EJB software application name and a module associated with the application. However, Susarla in the same analogous art of dynamic class reloading mechanism discloses redeploy command (see for example, col.14, line 55- col.15, line 17). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to specify the redeploy command to redeploy classes as configured GUI interface in Kumar. One would have been motivated to do so to load or reload classes for the particular application as suggest by Kumar (see for example, col.9, lines 5-10)

Claim 15:

Kumar and Susarla disclose the method of claim 14, Susarla further discloses wherein said redeploy command includes a list of modules relative to the root of the application to be deployed, for redeployment of said modules (see for example, col.15, line 10, "loadClass (String className, string moduleName) public method" and related description")

Claim 16:

Kumar and Susarla disclose the method of claim 15, Kumar further discloses wherein the module is any of EJB components, class, or implementations (see for example, col.8, lines 29-40, "EJBs" and related description).

Claim 17:

Kumar and Susarla disclose the method of claim 15 [16], Kumar further discloses wherein the module is a WAR file (see for example, *col.8, lines 29-40, "Application server core classes", "servlets", "JSPs" and related description*).

Claim 18:

Kumar and Susarla disclose the method of claim 16, Kumar also wherein the module is an EJB impl class (see for example, *col.8, lines 29-40, "EJBs" and related description*).

Claim 19:

Kumar and Susarla disclose the method of claim 16, Kumar further discloses wherein the module is an EJB, and wherein each of the classes within that module are redeployed (see for example, *Fig.15, step 308 and related text*).

Claims 1-10

Claims 1-10 are system version for performing the claimed method as in claims 11-20 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above and certainly a computer system would need to run and/or practice such function steps disclosed by reference above. Thus, they also would have been obvious.

Claims 21-30:

Claims 21-30 are computer program products version of the claimed method, wherein all claimed limitation functions have been addressed in claims 11-20 above respectively. It is well known in the computer art that such method steps can be implemented as computer program and can be practiced and /or stored on a computer operable media. Thus, they also would have been obvious in view of reference teachings above.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- Taylor et al., (US 2004/0019887) discloses a method, system and program for loading program components by using a loader hierarchy structure.
 - Allamaraju et al., (ISBN: 186-00537-7, published by Springer-verlag Net York Inc. September 2001, chapter 24, pages 1-24) discloses J2EE including EJBs and Web application packaging and deployment.
 - Brett Peterson (Understanding J2EE Application Server Class Loading Architectures, May 2002, Retrieved from internet
<<http://www.theserverside.com/tt/articles/article.tss?l=ClassLoading>>)
discloses class loading hierarchy about three major application servers.

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- DeBoer et al, (J2ee Class Lading Demystified, Aug 2002 From IBM website <
<http://www.ibm.com/developerworks/library/devin-xalan.html>>, pages 1-10)
discloses J2EE class loading in WebSphere Application Server.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059 and Fax number is (571) 270-2059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

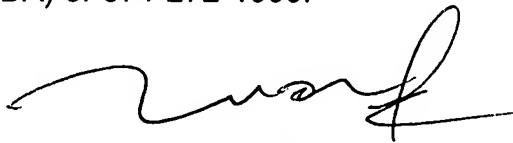
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571- 272-1000.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZW



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SUPERVISORY PATENT EXAMINER